

# ucore<sup>®</sup>

**UCORE RARE METALS INC.**

**Management's Discussion and Analysis  
for the Three-Month Period Ended March 31, 2023**

This Management's Discussion and Analysis of Ucore Rare Metals Inc. ("Ucore" or the "Company"), prepared as of May 30, 2023, provides analysis of the Company's financial results for the period ended March 31, 2023. The following information should be read in conjunction with the consolidated financial statements and notes thereto for the period ended March 31, 2023 which are prepared in accordance with International Financial Reporting Standards. All amounts are expressed in Canadian dollars unless otherwise noted.

## **Forward Looking Statements**

*This discussion and analysis includes certain statements that may be deemed "forward-looking statements". All statements in this document (other than statements of historical facts) that address future business development and/or acquisition activities (including any related required financings), timelines, events or developments that the Company expects, are forward looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance or results and actual results or developments may differ materially from those in forward-looking statements. In regard to Ucore's plans and objectives, the Company has assumed that through its subsidiary, Innovation Metals Corp. ("IMC"), it will be able to develop its RapidSX™ technology and demonstrate its commercial viability. The Company also assumes that the Company will be able to procure or retain additional partners and/or suppliers, for the Company's expected Louisiana Strategic Metals Complex ("SMC") and other future SMCs. The Company has also assumed that sufficient external funding will be found to: (i) fund IMC's continued commercial development and demonstration of RapidSX™; (ii) fund the continued development of specific engineering and other required plans for the Company's prospective SMCs; and (iii) fund the work necessary for the creation of a new National Instrument 43-101 technical report that demonstrates that the Company's Bokan Project is feasible and economically viable for the production of both REE and co-product mineral materials and metals and the then prevailing market prices based upon assumed customer off-take agreements. Ucore has also assumed that sufficient external funding will be found to provide continuing working capital for the Company and, if required, repay any outstanding debt that is owed by the Company when it becomes due. Factors that could cause actual results to differ materially from those in forward-looking statements include, without limitation: the Company failing to raise and maintain sufficient funds to pursue its objectives and continue as a going concern; RapidSX™ failing to demonstrate commercial viability in large commercial-scale applications; IMC failing to protect its intellectual property rights in RapidSX™; Ucore not being able to procure additional key partners or suppliers for the Company's proposed Louisiana SMC; Ucore not being able to raise sufficient funds to fund the specific design and construction of the Louisiana SMC; adverse capital-market conditions; unexpected due diligence findings; the emergence of alternative superior metallurgy and metal-separation technologies; the inability of Ucore and/or IMC to retain its key staff members; a change in the legislation in Louisiana and/or in the support expressed the State of Louisiana regarding the development of the Louisiana SMC; the availability and procurement of any required interim and/or long-term financing that may be required; and general economic, market or business conditions. For additional information, see "Risks and Uncertainties" herein.*

## Overview

Ucore Rare Metals Inc. ("Ucore" or the "Company") is a company focused on critical metals separation technologies with near term potential for production, growth, and scalability.

Ucore's vision and plan is to become an advanced technology company that provides separation products and services to the critical metals industry. Through strategic partnerships, this plan includes - developing a vertically integrated North American rare earth element ("REE") supply chain, disrupting the People's Republic of China's control of this supply chain, establishing long-term feedstock supply relationships, developing a heavy and light rare-earth processing facility in the US State of Louisiana, developing subsequent strategic metals complexes ("SMCs") in the United States and Canada, establishing long-term relationships with metal/alloy and magnet makers, and the longer-term development of Ucore's heavy-rare-earth-element mineral-resource property at Bokan Mountain on Prince of Wales Island, Alaska (an NI-43-101 technical report was filed on SEDAR on March 14, 2013).<sup>1</sup>

On May 8, 2020, the Company acquired Innovation Metals Corp. ("IMC"), a private company focused on the research and development of technologies including IMC's proprietary RapidSX™ process for the low-cost separation and purification of REEs, nickel ("Ni"), cobalt ("Co"), lithium ("Li") and other technology metals, via an accelerated form of solvent extraction. IMC is currently commercializing this approach for REEs, to help enable mining, metal-recycling and other companies to compete in today's global marketplace. Unlike Ucore's other subsidiaries, until May 2022, IMC was operated as a separate and distinct business entity from Ucore. In May 2022, IMC's operations became integrated with Ucore's operations consistent with the other subsidiaries of the Company. A diagram of Ucore's corporate organization structure is found at Appendix "A" of this MD&A.

The Company expects to complete its commissioning of the RapidSX™ REE Demonstration Plant at its Commercialization and Demonstration Facility in Kingston, Ontario, in Q3-2023 followed by demonstration testing of its RapidSX™ separation technology with a variety of prospective feedstocks over the remainder of 2023 and 2024. These demonstrations are prerequisite and corequisite activities to: (i) the physical creation of the Company's planned Louisiana SMC; and (ii) the Company participating in associated joint venture or licensing opportunities related to the use of its RapidSX™ process.

The Company has an effective 100% ownership stake in the Bokan-Dotson Ridge Rare Earth Project. On March 31, 2014, Ucore announced the unanimous support of the Alaska State Legislature for Senate Bill 99 (2014), which authorized the Alaska Industrial Development and Export Authority ("AIDEA") to issue up to USD\$145 million in bonds for the infrastructure and construction costs of the Bokan-Dotson Ridge Rare Earth Project. This financing by AIDEA is conditional upon, among other things, the Company delivering a positive definitive feasibility study for the Bokan-Dotson Ridge Rare Earth Project (the "Bokan Project").

## IMC & RapidSX™

IMC is the Company's wholly owned Canadian subsidiary company that is developing RapidSX™ technology for the commercial separation and purification of critical metals – starting with REEs. RapidSX™ is an accelerated solvent-extraction-based separation technology, developed and successfully piloted by IMC in the late 2010s. Amongst other test work, RapidSX™ has proven effective at the pilot scale in separating both heavy REE ("HREE") and light REE ("LREE") chemical concentrate feedstocks to commercially-pure individual REEs with much higher process efficiency relative to conventional solvent extraction technology. The Company and IMC have created a RapidSX™ Commercialization and Demonstration Facility to demonstrate the commercial efficacy of the technology for the separation and purification of REEs (the "RapidSX™ Program") in Kingston, Ontario, for the processing of mixed-rare earth oxide and carbonate chemical concentrates into separated REEs.

<b>The RapidSX™ Program</b>	<b>For the period-ended March, 2023</b>
<b>Description of the project, including the Company's short and long-term plans for the project and the status of the project relative to those plans:</b>	During Q1 2023, the Company worked on commissioning its 52-Stage RapidSX™ REE Commercial Demonstration Plant ("Demo Plant") within the Company's Commercialization and Demonstration Facility ("CDF") in Kingston, ON. While commissioning continues, the Company has shifted its focus to include demonstrating the commercial efficacy of the RapidSX™ technology platform for the separation and purification of REEs utilizing the Demo Plant as compared head-to-head versus a Conventional Solvent Extraction ("CSX") Pilot Circuit. This current work includes the completion of the Demo Plant commissioning trials over hundreds of runtime hours

<sup>1</sup> See the Company's Preliminary Economic Assessment (PEA) that was filed on SEDAR on March 14, 2013 as a technical report in compliance with National Instrument 43-101 *Standards of Disclosure for Mineral Projects* ("NI 43-101").

followed by thousands of runtime hours in demonstration trials mode. The primary objective of the trials is to produce consistent REE products<sup>2</sup> (from multiple feedstocks) at specifications while assessing the efficiencies and benefits of the RapidSX™ technology versus the results of the concurrent trials taking place on the traditional CSX Pilot Circuit. This will include a commercial-scale techno-economic assessment of the RapidSX™ separation and purification process, including capital and operating costs. Concurrently, but slightly lagging the RapidSX™ Program, the Company is incorporating the RapidSX™ technology platform into the specific engineering and design packages for its first commercial-scale SMC planned for Louisiana. The Company also expects to incorporate the RapidSX™ commercial-scale technology platform into the Bokan HREE Project Pre-Feasibility Study (“PFS”) and/or Feasibility Study (“FS”) contemplated for after completion of the Louisiana SMC.

The RapidSX™ Program is being led by the Company’s CEO and Chairman, Pat Ryan, P.Eng., and the Company’s Vice-President and Chief Operating Officer, Mike Schrider, P.E., in conjunction with Dr. Boyd Davis and Mr. Alain Roy, principals of Kingston Process Metallurgy Inc. (“KPM”), supported by additional technical expertise that Ucore and IMC have engaged for the RapidSX™ Program. KPM is the Company’s and IMC’s research, development and commercialization partner and will be supporting all aspects of the technical work to finalize the commercialization program required to scale up the RapidSX™ technology for commercial deployment into the SMCs.

The Company had originally planned to construct an 18-stage RapidSX™ REE demo plant for the separation of HREEs from LREEs. However, in early 2022, the Company received very positive results from the independent RapidSX™ technology evaluation, including the conclusion that a RapidSX™ production plant can potentially have one-third the footprint of a CSX production plant with the same throughput. The Company then expanded the design and construction of the Demo Plant to the now single train 52-stage<sup>3</sup> design for the separation of many different feedstocks to virtually any one particular target REE element or group.

The single train 52-stage RapidSX™ demo plant is designed and constructed to process:

1. Many different feedstock sources, including all planned LREE and HREE chemical concentrates for the Louisiana SMC;
2. Tens of tonnes of mixed rare earth concentrates on a per-annum basis, including products for prospective metal/alloy makers and original equipment manufacturer (“OEM”) qualifications; and
3. All RapidSX™ splits required to produce individual praseodymium (Pr), neodymium (Nd), terbium (Tb), dysprosium (Dy) and yttrium (Y) - including the NdPr compound.

The short-term (12 months) objectives of the current RapidSX™ Program include:

1. Validation of the RapidSX™ applied chemistry at commercial demonstration-scale under semi-continuous conditions through the robust processing features of the Demo Plant;
2. Validation of the physical design of the RapidSX™ platform at commercial demonstration-scale over thousands of Demo Plant runtime hours;
3. Validation of the specific process flowsheets/programming developed for a particular REE feedstock, including multiple US-friendly sourced commercial REE feedstocks currently under consideration;

<sup>2</sup> NdPr, Pr, Nd, Tb, Dy, and Y rare earth compounds and elements.

<sup>3</sup> Comprising of all of the unit operations of solvent extraction chemistry - extract, scrub, strip, wash and saponification.

	<ol style="list-style-type: none"> <li>4. Initial generation of rare earth element product qualification samples for potential customers for independent evaluation;</li> <li>5. Confirmation testing of the full size RapidSX™ components for the Louisiana SMC;</li> <li>6. Creation of design and construction inputs required for the design of a commercial-scale RapidSX™ HREE and LREE separation facility i.e., "copy and paste" all knowledge gained and lessons learned to the Louisiana SMC; and</li> <li>7. Development of a detailed techno-economic assessment of RapidSX™ based separation, as part of the commercialization process.</li> </ol> <p>The long-term (12-36 months) objectives of the current the RapidSX™ Program include:</p> <ol style="list-style-type: none"> <li>1. Demonstrate the successful process qualification of any feedstock destined for an SMC at the Demo plant over hundreds of runtime hours for each planned SX-n production circuit. Transfer the knowledge gained to the full-scale SMC design, construction, commissioning, qualifications, and operating processes;</li> <li>2. Utilize the Demo Plant for SMC operator training;</li> <li>3. Incorporate a program of continuous improvement to ensure that the Company is incorporating the knowledge and experience gained through operating the Demo Plant; and</li> <li>4. Concurrently with the Demo Plant qualification process of REE feedstocks, focus the attention of RapidSX™ technology development to other critical metals.</li> </ol>
<p><b>The expected timeline of the project, including the Company's progress compared to the timeline:</b></p>	<p>Since the Company completed its acquisition of IMC in May 2020, a significant amount of work has been planned and/or performed to advance the RapidSX™ Program, including:</p> <p>Technical:</p> <ol style="list-style-type: none"> <li>1. Engaging KPM as IMC's long-term research, development, and commercialization partner: Q1-2020;</li> <li>2. Developing the CDF in Kingston, ON: Q1-2020 through at least Q2-2025;</li> <li>3. Completing the RapidSX™ initial technical-validation and optimization program on the constructed research &amp; development apparatus (the "Research Rig"): Q1-2020 to Q3-2022;</li> <li>4. KPM's participation with AIDEA in the execution of Dr. Ahmad Ghahreman's independent assessment of the RapidSX™ technology platform: Q3-2022 to Q4-2022;</li> <li>5. Designing, constructing, and continuously improving the 52-Stage RapidSX™ REE Commercial Demonstration Plant ("Demo Plant") within the CDF: Q2-2022 through at least Q2-2025;</li> <li>6. Designing, constructing, and continuously improving the 52-stage CSX mixer settler pilot-scale circuit (the "CSX Pilot Circuit"): Q2-2022 through at least Q3-2024;</li> <li>7. Demo Plant commissioning trials: Q1-2023 to Q3-2023;</li> <li>8. Conducting the formal techno-economic assessment program for the commercial deployment of the RapidSX™ technology platform: Q2-2023 through at least Q4-2024;</li> </ol>

	<ol style="list-style-type: none"> <li>9. Expanding the focus of the RapidSX™ technology platform to other critical metals: Q3-2023 through at least Q2-2025;</li> <li>10. Commencement of the "Copy and Paste" technology template to transfer the engineering, construction, commissioning, and product qualification data from the Demo Plant to the full-scale Louisiana SMC: Q2-2022 through Q4-2024;</li> <li>11. Demo Plant product qualification trials: Q3-2023 through at least Q2-2025; and</li> <li>12. SMC operator training at the Demo Plant: Q3-2024 through at least Q4-2024.</li> </ol> <p>Business:</p> <ol style="list-style-type: none"> <li>1. Working directly with US-registered lobbyist J.A. Green &amp; Company and US municipal, state, and federal government entities to advance various initiatives related to the Demo Plant and the future SMCs;</li> <li>2. Working directly with Canadian municipal, provincial, and federal government entities and/or representatives to advance various initiatives related to the Demo Plant and future potential SMCs; and</li> <li>3. Significant business developments with multiple upstream and downstream prospective partners, suppliers and customers toward the establishment of a North American REE supply chain, focusing on Ucore's and IMC's role with mid-stream processing and RapidSX™: Q2-2020 to Current.</li> </ol>
<p><b>The expenditures made on the project to date and during the period:</b></p>	<p>Since May 2020 and up until March 31, 2023, the Company has fully financed \$7.82 - million of additional cash investment into IMC to advance the RapidSX™ technology for commercial deployment.</p> <p>During the three-month period ended March 31, 2023, the Company incurred research and development expenditures of approximately \$71,095 (Q1 2022 - \$187,580) which relates to labour, supplies and materials, consulting and third party services, and facility expenditures incurred to further advance the Company's' RapidSX™ technology.</p> <p>In addition to research and development expenditures incurred, during the three-month period ended March 31, 2023 the Company capitalized Demo Plant expenditures of \$1,364,642 (December 31, 2022 - \$2,363,022). Additions to the Demo Plant were reduced by a SR&amp;ED recovery of \$78,284 (December 31, 2022 - \$113,020). The Company has not amortized the Demo Plant during the period, and will commence amortization once the Demo Plant is available for use, which will occur once it has been fully commissioned.</p>
<p><b>The anticipated timing and costs to take the project to the next stage of the project plan:</b></p>	<p>The Company's next significant milestone is the completion of the commissioning of the Demo Plant, subject to available financing, the Company expects to complete this milestone in Q3-2023. To achieve this milestone, the Company estimates it will incur expenditures between \$2,250,000 and \$2,950,000 in 2023.</p>
<p><b>The license(s) and regulatory approval(s) that the Company must obtain related to the project and the next milestone:</b></p>	<p>No required licenses or regulatory approvals are associated with the RapidSX™ technology development platform. Any licenses permits or approvals that are related to the operation of the CDF are the responsibility of KPM (the landlord and the Company's research, development, and commercialization partner).</p>

### *Ghahreman Report – Independent Third Party Technical Review*

On April 27, 2022, the Company issued a press release that provided an update on the positive conclusions of a multiphase, independent, third party technical review of RapidSX™ technology prepared by Dr. Ahmad Ghahreman of AG Hydrometallurgy Services Inc. (“AGHS”) as a noted subject matter expert. With a focus on the technical assuredness, benefits and scalability of the RapidSX™ technology specifically for the separation of REEs for the production of commercial-grade rare earth oxides (“REOs”), the independent evaluation concluded the following:

- RapidSX™ is capable of separating both HREEs and LREEs for producing high-quality REOs and uses the same chemistry as proven CSX processes but with faster kinetics; thus, no chemistry risk at scale-up.
- The RapidSX™ process shows itself to likely be at least three times as efficient as CSX, concluding a production plant can potentially have a two-thirds smaller footprint than a CSX plant of the same capacity with an associated separation process capital cost (capex) reduction of 50 per cent or better.
- Separation and purification characteristics of REEs by RapidSX™ are dependent on the REEs chemistry (same as CSX) and, given a smaller footprint for the same throughput, should have an expected operating cost (opex) of 20 per cent less than CSX for the same purpose.
- RapidSX™ is a modular process, making it scalable with minimal risk. The process can be designed to process REEs in the range of 1,000 to 10,000-plus tonnes per annum.

AGHS was engaged by AIDEA to undertake a technical review of the RapidSX™ technology and to provide an opinion concerning the technical and economic feasibility and scalability of RapidSX™, specifically for the separation of REEs for the production of commercial-grade REOs in the Company's planned Alaska SMC. The report made the conclusion that the Company's RapidSX™ technology can be credibly and effectively used by the Company to execute its business strategy.

The Company has developed additional innovations and proprietary improvements to RapidSX™ since the time when Dr. Ahmad Ghahreman and AGHS performed their review, at which time only the Research Rig was available at the CDF. Management of the Company is confident that the Demo Plant trials will outperform the Research Rig data.

### *Demo Plant Tours – CDF in Kingston, ON*

In early March 2023, the Company hosted dozens of industry and government visitors for private tours and presentations at the CDF in Kingston, ON. The by-invite-only tours introduced and/or updated key existing and prospective strategic partners (including expected upstream REE-feedstock suppliers, expected downstream OEM-automotive and magnet-industry customers, as well as several Canadian government representatives) by demonstrating the operational advantages of the Company's RapidSX™ 52-stage REE separation processing system. The Company highlighted the uniqueness of being able to qualify OEM-planned product and actual customer requirements. During the tours, the Company also outlined the next stages of commercial deployment activities made possible by the up-scaled design and function of the Demo Plant.

### *Mech-Chem Associates, Inc. – SMC Engineering*

The Company continues its engagement with Mech-Chem Associates, Inc. (“Mech-Chem”) to develop the specific engineering requirements for all process phases of the planned SMCs in conjunction with Ucore and IMC's engineering personnel. Additionally, Mech-Chem has incorporated its developed pre-and post-RapidSX™ process engineering into the design of the Demo Plant to ensure a truly seamless ramp up to the SMC's full-scale engineering package. The Company has constructed the Demo Plant within a 5,000-square-foot building at KPM's facilities in Kingston, ON. This concept of building a REE-processing plant within an existing building is the go-forward engineering and construction template for the process that the Company will replicate to create the full-scale Louisiana SMC.

### **The SMC Business Model**

Since the Company's May 8, 2020 acquisition of IMC and its proprietary RapidSX™ metals separation technology, the Company has focused on a definitive commercialization pathway to achieve a secure, economic, REE supply chain in North America – starting with securing mid-stream REE processing. As critical as the establishment of a complete North American REE supply chain is, it must be achieved in the shortest time frame possible and with the lowest possible capital and operating costs. The Company's business plan is focused entirely on near-term North

American REE independence, by establishing mid-stream REE processing and production capacity to cost-effectively transform US-friendly-sourced REE feedstocks into made in North America finished REOs.

On October 6, 2020, the Company introduced its ALASKA2023 business plan centered about the construction of an Alaska SMC founded on the RapidSX™ separation technology platform. In early 2022, it became apparent that additional SMCs are required to truly establish an independent North American REE supply chain and that given the projected rate of automotive electrification, the first SMC should be established in a "brownfield" facility surrounded by significant business infrastructure. Therefore, the Company expanded its SMC business model to now include additional SMCs and has strategically selected Alexandria, Louisiana, for the location of its first SMC. Alaska and/or Canada (Ontario, Saskatchewan and/or Nova Scotia) are the prospective locations for additional SMCs.

<b>The LSMC Program</b>	<b>For the period-ended March 31, 2023</b>
<p><b>Description of the project, including the Company's short and long-term plans for the project and the status of the project relative to those plans:</b></p>	<p>On October 17, 2022, the Company announced that it had entered into a mutual commitment with the US State of Louisiana toward the establishment of the Company's first SMC REE separation facility - the Louisiana SMC ("LSMC"). Since the spring of 2022, the Company had been engaged with the state and numerous local economic development agencies and communities as it worked through the down-selection process from twenty potential existing brownfield facilities across the state to the selected Alexandria facility based on the following criteria:</p> <ul style="list-style-type: none"> <li>• Commercial considerations;</li> <li>• Engineering fitness and expansion capabilities;</li> <li>• Environmental assessment and permitting;</li> <li>• Community integration; Commercial considerations; and</li> <li>• Government incentives (as further described below)</li> </ul> <p>On April 6, 2023, Ucore announced that the State of Louisiana had increased its incentive offer to \$20+ million and the Company had selected an 80,800-square-foot brownfield facility within the England Airpark in Alexandria, LA, as the location for its planned Louisiana SMC REE separation and oxide production facility. The England Airpark is the former England Air Force Base and, since 1992, has been run by the England Authority. The mission of the England Authority is to create jobs for central Louisiana.</p> <p>The Company and the England Authority have established a multi-decade lease arrangement to ensure the long-term viability of the LSMC and continued employment opportunities for the residents of Rapides and the surrounding parishes. Additionally, GAEDEA (Greater Alexandria Economic Development Authority) has committed to providing US \$360,000 of grant funding over 24 months to reduce the Company's initial lease obligations to the England Authority. The communities of central Louisiana have an available work force of over 114,000 persons within an hour's drive of the LSMC.</p> <p>The LSMC will be founded on the Company's proprietary RapidSX™ technology platform, representing North America's first REE processing center based on 21st century separation technology. It is expected to receive REE feedstock from several U.S.-friendly nations and it is expected to produce the individual REOs required for fabricating rare earth permanent magnets used in electric motors and generators, thus forming a significant part of North America's developing independent REE supply chain.</p> <p>The LSMC Program, is being led by the Company's CEO and Chairman, Pat Ryan, P.Eng., and the Company's Vice-President and Chief Operating Officer, Mike Schridder, P.E., and is highly integrated with the RapidSX™ Program. This includes KPM, Mech-Chem and Ucore's internal resources. The Company is now considering architects, engineers and contractors familiar with executing projects in Alexandria, Louisiana, and with the CDF, joint product qualification and verification trials of feedstocks projected for the LSMC.</p>



	<p>The Company will "copy and paste" all knowledge gained from the RapidSX™ Program at the Kingston CDF to the LSMC.</p> <p>Subjective to available financing, the short-term (12 months) objectives of the current LSMC Program include:</p> <ol style="list-style-type: none"> <li>1. Secure the offered Louisiana Economic Development ("LED") incentive, rebate, and assist package;</li> <li>2. Secure US-friendly feedstock sources for early production rates;</li> <li>3. Secure financing, including pre-purchase and supply offtake agreements with OEM-automotive companies and similar downstream users of REEs;</li> <li>4. Finalizing the Contract Design engineering and estimating packages;</li> <li>5. Start the acquisition process for long lead materials and equipment;</li> <li>6. Commence the Detail Design engineering and estimating packages through a Louisiana-centric engineering and construction team;</li> <li>7. Establish the required personnel and business infrastructure in Louisiana;</li> <li>8. Secure permitting required to initiate construction (air, water and solid discharges, building, etc.); and</li> <li>9. Commence initial construction activities.</li> </ol> <p>Subject to available financing, the long-term (12-60 months) objectives of the current RapidSX™ development program include:</p> <ol style="list-style-type: none"> <li>1. Completion of the detailed design engineering and estimating packages;</li> <li>2. Finalize Phase-1 engineering, procurement, construction, commissioning, and OEM product qualifications;<sup>4</sup></li> <li>3. Initiate Phase-1 production;</li> <li>4. Finalize Phase-2 engineering, procurement, construction, commissioning, and OEM product qualifications;<sup>5</sup></li> <li>5. Initiate Phase-2 production;</li> <li>6. Finalize Phase-3 engineering, procurement, construction, commissioning, and OEM product qualifications;<sup>6</sup></li> <li>7. Initiate Phase-3 production;</li> <li>8. Secure final required permits; and</li> <li>9. Secure additional feedstock sources.</li> </ol>
<p><b>The expected timeline of the project, including the Company's progress compared to the timeline:</b></p>	<p>Successful Phase 1 REO product qualification trials at the LSMC facility in Q4-2024 remains the objective of the Company as the first step of the Company's SMC business model – this entails:</p> <p>Technical:</p> <ol style="list-style-type: none"> <li>1. Finalizing the RapidSX™ scale-up design and physical verification: Q1-2023 through Q4-2023;</li> <li>2. Finalize the LSMC Contract Design package: Q4-2021 through Q4-2023;</li> <li>3. Ucore furnished long lead material and equipment ordering: Q3-2023 to Q4-2023;</li> <li>4. Selection and execution of a Louisiana-centric engineering and construction team to develop a detailed design and price estimate for engineering, procurement, and construction for each of the three Phases of production: Q2-2023 through Q4-2024;</li> <li>5. Construction permitting (Phase 1 Only): Q3-2023 to Q4-2024;</li> <li>6. Procurement and construction (Phase 1 Only): Q4-2023 to Q4-2024;</li> </ol>

<sup>4</sup> Phase 1 = 2,000 tpa TREO throughput (ex-Cerium, ex-yttrium)

<sup>5</sup> Phase 2 = 5,000 tpa TREO throughput (ex-Cerium, ex-yttrium)

<sup>6</sup> Phase 3 is targeted for 7,500 tpa REO throughput (ex-Cerium, ex-yttrium).

	<p>7. Commissioning and product qualification trials<sup>7</sup> (Phase 1 Only): Q3-2024 to Q1-2025; and</p> <p>8. Establish production (Phase 1 Only): Q4-2024 to Q1-2025.</p> <p>Business:</p> <ol style="list-style-type: none"> <li>1. Secure LED incentive, rebate, and assist package offer: Q2-2023 to Q4-2023;</li> <li>2. Secure US-friendly feedstocks: Q3-2021 to Q4-2023;</li> <li>3. Secure financing and pre-purchase &amp; supply offtake agreements: Q2-2021 to Q4-2023;</li> <li>4. Establish an Alexandria Corporate infrastructure<sup>8</sup> and workforce: Q2-2023 to Q1-2025;</li> <li>5. Working directly with US-registered lobbyist J.A. Green &amp; Company and US municipal, state, and federal government entities and representatives to advance various initiatives; and</li> <li>6. Significant business developments with multiple upstream and downstream prospective partners toward the establishment of a North American REE supply chain, starting with mid-stream processing and RapidSX™: Q2-2020 to Current.</li> </ol>
<b>The expenditures made on the project to date and during the period:</b>	During the three-month period ended March 31, 2023, the Company capitalized expenditures of \$101,377 (December 31, 2022 - \$Nil) relating to the LSMC.
<b>The anticipated timing and costs to take the project to the next stage of the project plan:</b>	US\$45 Million to get to Phase 1 production and initial sale delivery, as noted above.
<b>The license(s) and regulatory approval(s) that the Company must obtain related to the project and the next milestone:</b>	<p>The Company has conducted preliminary meetings with the State of Louisiana's Department of Environmental Quality regarding its prospective air, water and solid discharge permits and has received and expedited permitting pathway in its offer from LED. Additionally, the England Authority is responsible for all other required building permits.</p> <p>The next permitting milestone will be the submission of permit applications to the DEQ upon finalization of the Contract Design Package.</p>
<b>Description of the risks associated with not obtaining the required license(s) and regulatory approval(s):</b>	The noted permits are required to operate the LSMC. With the declared expedited permitting support of LED and the England Authority as the local permitting authority, the Company has selected a project location which mitigates the permitting risk of the LSMC Project. However, any delay in receiving a required permit will likely delay the LSMC from going into operation.

*Letter of Intent from Louisiana Economic Development (LED)*

As the result of a larger than originally anticipated facility selection, the Company is targeting the expansion of its maximum production rate from 5,000 to 7,500 tonnes per annum (tpa) of TREO throughput (ex-cerium and ex-yttrium). In turn, the Company has received and accepted an amended non-binding letter of intent from LED. This letter of intent added a potential US \$900,000 (U.S.) grant for infrastructure costs in consideration of the Company's updated 7,500-tonne-per-annum facility with a projected US \$75-million capital expenditure investment (CAPEX) and 100 family wage paying jobs for the fully completed LSMC -- bringing the total potential value of state grants, tax incentives, payroll rebates, and customized employment recruitment and training to US\$15-million. Moreover, LED estimates the project will result in 298 new indirect jobs, for a total of 398 new jobs in central Louisiana.

The financial, economic and tax incentive offers described in the letter of intent are estimates based on the Company's commitment to and fulfillment of its capital investment, employment and expected payroll schedules for the Louisiana SMC. This includes (i) a total capital investment by the Company for the Louisiana SMC of at least US \$75-million by Dec. 31, 2027; and (ii) new jobs in Louisiana at the Louisiana SMC in the amount of 45 jobs in

<sup>7</sup> Enhanced by identical feedstock qualification trials and knowledge transfer at/from the Kingston CDF.

<sup>8</sup> The Company has established the Louisiana domiciled and wholly owned business entity, Ucore North America, LLC, as the entity to develop and operate the LSMC.

2025 with an annual payroll of US \$2.4-million, rising to 80 jobs in 2026 with an annual payroll of US\$4.4-million, and rising to 100 jobs in 2027 with an annual payroll of US\$5.6-million.

Louisiana's industrial tax exemption program can offer up to a 10-year tax exemption to the Company. LED estimates that the exemption may result in up to US\$8.2-million in tax savings for the Company. The state's industrial tax exemption program is administered by and will be subject to a contract to be finalized between the Company and the Louisiana Board of Commerce and Industry and requires approval from parish and municipal governing bodies, as well as the parish school board.

Louisiana's quality jobs program provides a 4-per-cent or 6-per-cent payroll rebate on the gross annual payroll for qualifying new jobs for up to 10 years. The program also refunds state sales/use tax paid on construction materials purchased during construction or a 1.5-per-cent project facility expense rebate on certain capital expenditures. LED estimates that the value of this program could be up to US\$4.5-million for the Company. The quality jobs program is administered by and will be subject to a contract to be finalized between the Company and the Louisiana Board of Commerce and Industry.

Louisiana's research and development tax credit program encourages businesses to establish or continue qualified research and development activities within the state. The benefit is primarily tied to nationwide employment and ranges from 5 to 30 per cent on increases in qualified expenses. Company eligibility for the program is subject to the statute and rules applicable to the program. The LOI contemplates the Company's participation in the program; however, the value of the benefits from the program will be determined later and will be dependent upon the actual qualified expenses that the Company incurs.

Louisiana's small business loan and guarantee program facilitates capital accessibility for small businesses by providing loan guarantees to banks and other small business lenders. The program is administered by the LED. The letter of intent contemplates the Company's participation in the program; however, the value of the benefits from the program will be determined during future negotiations between the Company and LED.

A performance-based grant to be used for reimbursement of Company expenditures for infrastructure costs. This will be administered pursuant to a co-operative endeavour agreement and requires Company compliance with and adherence to the capital investment and employment and payroll commitments. LED estimates the grant, based upon the needs of the facility, as well as the investment, employment and payroll projections, could be for up to US\$900,000, payable at US\$400,000 in 2025 upon the facility being placed into operation/production with more than US\$45-million in capital expenditures and 45 full-time employees on payroll and US\$300,000 in 2026 after US\$55-million in capital expenditures and 80 full-time employees on payroll, and US\$200,000 in 2027 after US\$75-million in capital expenditures and 100 full-time employees.

The LED FastStart program offers substantial LED investment in customized employment recruitment and training during the Company's period of employment ramp-up. LED estimates that FastStart may provide a benefit to the Company of up to US\$1.4-million.

The Company's final board of directors' approval is contingent on receiving the offered Louisiana incentive packages.

#### *Other Prospective SMC Business Model Partners*

On October 7, 2021, the Company provided information on the execution of a memorandum of agreement ("MOA"), setting forth certain nonbinding understandings and binding agreements between Ucore and Southeast Conference for the evaluation and potential establishment of a Natural Resource Development Complex (the "Complex"). The Complex would include land and a building (the "Facility") suitable to house the Alaska SMC for the production of REOs. The site selection for the Facility shall be based on the explicit goal of expanding the Complex with other related and non-related Southeast Alaska economic development opportunities.

On October 19, 2021, the Company provided information on the execution of a memorandum of understanding ("MOU") setting forth certain nonbinding understandings and binding agreements between Ucore and Vital Metals Limited ("Vital Metals" or "Vital"). The MOU is the first step towards the establishment of a long-term supply agreement for the delivery of mixed rare earth chemical concentrate ("MREC") from Vital Metals' Nechalacho project to the Company's planned Louisiana SMC. The MOU contemplates shipping MREC from Vital's Saskatoon, Saskatchewan, rare earth extraction plant.

On January 20, 2022, the Company provided information regarding progress towards pre-purchase & supply agreements for SMC REO products, including a) a 2021 engagement that is currently under a confidentiality agreement with an international automotive OEM and their engineering consultant to conduct a due diligence review of the SMC development plans. The initial-phase due diligence was successfully concluded, and discussions

continue; and b) engaging in active offtake (for REOs and/or metals/alloys) pre-purchase and supply agreement discussions with several international companies; conversations are at various stages from early-stage to executed non-binding LOIs and/or MOUs.

On April 20, 2022, the Company provided information on the execution of an MOU with thyssenkrupp Materials Trading GmbH. The MOU contemplates thyssenkrupp Materials Trading initially supplying a minimum of 1,000 tons per annum (“tpa”) of mixed rare earth carbonate for processing at the Company’s Louisiana SMC in 2024, with quantities increasing in subsequent years. The parties have agreed to work toward a 10-year binding contract for the continued and increasing supply of mixed rare earth carbonates for processing, including the consideration of various marketing strategies.

**Alaska SMC**

On January 13, 2021, senior management from the Company presented an overview of its plans to develop and operate the Alaska SMC and the Company’s long term plans in Alaska to the AIDEA board. The Company’s currently wholly owned subsidiary, Alaska SMC LLC (“ASMC”), would manage the construction and operation of the Alaska SMC, in addition to serving as the prospective investment entity for AIDEA. The resolution passed by AIDEA authorizing a cost reimbursement agreement with the Company for due diligence activities related to the development and operation of the ASMC was unanimously approved by AIDEA’s board. The due diligence efforts were completed in Q1-2022. However, in an effort to simplify the process, the Company has since asked AIDEA to shift its expected financing participation to the construction phase as opposed to the design phase, as originally envisioned.

On January 13, 2021, the board of directors of AIDEA unanimously passed a resolution authorizing the formalization of the preliminary Alaska SMC due diligence process that the Company had been conducting with AIDEA staff since October 2020. The Company had then approached AIDEA regarding a prospective investment for the development and commercial-scale operation of the Company’s Alaska SMC, planned to be built in Ketchikan, Alaska, as the first development component of the Company’s 100% owned Bokan Project. The Alaska SMC project is distinct and completely separate from the Alaska State Legislatures authorization of US \$145 million in AIDEA issued bond financing for the Bokan-Dotson Ridge Rare Earth Element Project.

As of the date of this MD&A, the Company and its advisors remain in discussions with the State of Alaska and are still hopeful for the eventual development of the ASMC in Ketchikan subject to the Company’s strategic planning and available funding for a dedicated Alaska project.

**Bokan-Dotson Ridge, Alaska**

In 2006, the Company acquired the right to the Bokan Mountain mineral property through five separate option agreements to acquire a 100% interest in a parcel of unpatented mineral claims from underlying owners and through staking a 100% interest in an additional parcel of prospective ground. The option agreements provide for the Company to acquire a 100% interest in the optioned claims in exchange for total remaining payments of US\$90,000. The five vendors will retain Net Smelter Royalties (“NSR”) ranging from 2% to 4% on their specific claims. The Company has the right to purchase between 33% and 100% of the NSR for cash payments of US\$500,000 to US\$1,000,000 per vendor. The staked claims, together with the exclusive option agreements, have the effect of providing the Company with an effective 100% control of the Bokan Mountain mineral property.

<b><u>The Bokan Project in Alaska, USA</u></b>	<b>For the period-ended March 31, 2023</b>
<b>Description of the project, including the Company’s short and long-term plans for the project and the status of the project relative to those plans:</b>	<p>The Company’s Bokan Project is located on Prince of Wales Island, Alaska, approximately 60 km southwest of Ketchikan, Alaska and 140 km northwest of Prince Rupert, British Columbia, with direct ocean access to the western seaboard and the Pacific Rim. The project is situated in the Tongass National Forest, within an area set aside for natural resource development.</p> <p>On November 28, 2012, the Company reported the results of a PEA completed by Tetra Tech of Vancouver, BC, regarding the Dotson Ridge Zone of the Company’s Bokan Project in Southeast Alaska. A copy of this PEA (a NI 43-101 technical report) was filed on SEDAR on March 14, 2013.</p> <p>On October 15, 2019, the Company issued a press release describing an updated mineral resource estimate for the Bokan Project (now including the 2014 drill program results) including the identification of the tonnes and the</p>

	<p>corresponding grades of additional critical-metal co-product mineral resources. At a total rare earth oxide (“TREO”) cut-off grade of 0.40 percent, an additional 38.5 thousand tonnes of the critical and strategic metals, including niobium (Nb), zirconium (Zr) beryllium (Be), hafnium (Hf), titanium (Ti) and vanadium (V) were added to the mineral resource estimate at Bokan. The October 2019 study did not increase the overall tonnage of the deposit relative to the Company’s May 2015 mineral resource update; it only quantified the occurrence of co-product metals within the mineral resource established in 2015. The Company does not consider the co-product resources to be a “material change” to the Company.</p> <p>In the past, the Company’s primary focus was the exploration and development of the Bokan Project in Alaska, where the Company has incurred the majority of its mineral exploration expenditures for the past several years. In recent years, more of the Company’s time and expenses have been focused on developing the downstream metallurgy component of its plan, which involves the development of mineral separation, processing and metal purification technologies that can be utilized in its downstream business objectives. The Company sees the metallurgy component as one of its priorities since it is a potential bottleneck to implementing the full commercial production of the upstream Bokan Project. Accordingly, the Company’s mineral exploration and development expenses at the Bokan Project have been modest in the past two years.</p>
<p><b>The expected timeline of the project, including the Company’s progress compared to the timeline:</b></p>	<p>The Company expects that the prospective development profile of the Bokan Project is best implemented in the latter half of this decade after the Louisiana SMC and a North American centric REE supply chain is fully established.</p>
<p><b>The expenditures made on the project to date and during the period:</b></p>	<p>During the three-month period ended March 31, 2023, the Company’s expenditures on metallurgy work totalled \$7,475 (Q1 2022 - \$60,247), geology expenditures totalled \$18,204 (Q1 2022 - \$Nil) as a result of the 2022 summer fieldwork program, and an additional \$42,368 (Q1 2022 - \$40,027) was spent on environmental and permitting work which includes the general carrying cost of the property. In total, during the three-month period ended March 31, 2023, the Company incurred expenditures totalling \$68,047 (Q1 2022 - \$100,274) on the Bokan Project. See Appendix “B” of this MD&amp;A.</p> <p>The Company capitalizes its mineral exploration and evaluation (“E&amp;E”) expenditures. A detailed schedule of the Company’s deferred E&amp;E costs for the three-month periods ended March 31, 2023 and March 31, 2022 is included in Appendix “B” of this MD&amp;A.</p>
<p><b>The anticipated timing and costs to take the project to the next stage of the project plan:</b></p>	<p>It is anticipated that the next milestone for the Bokan Project is to refresh the 2013 PEA against the future back drop of a robust and independent North American REE supply chain supported by projects such as the Company’s Louisiana SMC and perhaps an Alaska SMC. The estimated cost for this effort is between \$350,000 and \$750,000 with an expected commencement in Q2-2023 and with a resulting updated PEA for the Bokan Project in approximately Q4 2023 or Q1 2024.</p>
<p><b>The license(s) and regulatory approval(s) that the Company must obtain related to the project and the next milestone:</b></p>	<p>None required to update the PEA.</p>

### *Other Bokan Project Details*

In April 2021, the Company completed the shipment of nearly 500 kilograms of sorted Bokan Project mineralized material to commence the approximately \$130,000 second phase of mill flow sheet development testing at SGS Canada - Lakefield. The goal of this testing program is to finalize the design of the Bokan Project mill flow sheet based on laboratory-scale results, which will include the recovery of REEs and the co-production of beryllium, zirconium, niobium and hafnium from the Bokan Project – the project is currently paused as the Company focuses on the SMC Business Model. The third phase of the program (to be undertaken as part of a pre-feasibility study ("PFS") or feasibility study ("FS")) will be to conduct pilot-scale testing of the developed mill flow sheet utilizing mineralized material from the May/June 2022 field program, and ultimately concluding with separation and purification testing at the Kingston CDF in Ontario.

In May and October of 2022, the Company announced the mobilization of a geological crew to conduct the Company's summer 2022 fieldwork program (the "Bokan 2022 Program") and the successful completion of the channel sampling and bulk sampling field work at the Bokan Project on Prince of Wales Island, Alaska, USA. The Bokan 2022 Program was a continuation of the Company's 2007, 2008, 2009, 2010, 2011 & 2014 Bokan Mountain Complex exploration drill programs and was undertaken by Aurora Geosciences (Alaska) Ltd. ("Aurora") of Juneau, Alaska. The Bokan 2022 Program was designed to improve the geological confidence of the mineral deposit in preparation for a forthcoming planned PFS or FS once a North American REE supply chain is firmly established.

On June 8, 2022, the Company issued a press release commenting on uranium and expressions of interest that had been received in regard to Ucore's not-often-mentioned Ross-Adams mine property, a former-producing uranium mine located on the Ross-Adams portion of Ucore's Bokan Project mineral property. During Q1 2023, no substantive discussions occurred with any party regarding the Ross-Adams zone; however, the Company remains receptive to exploring the possibility of a joint venture, sale or other transaction involving the Ross-Adams zone, leaving the Company's Bokan-Dotson Ridge Heavy REE Project intact and the approximately seven other historical mineralization zones unaffected.

### Qualified Persons

The technical disclosures in this section of this MD&A regarding the Bokan Project were written by the Company's management based upon information provided to the Company and approved by James Robinson, P. Geo., an independent geologist with Aurora Geosciences.

### Cautionary Notes

Please note that the Company's PEA is preliminary in nature, that it includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

### **General Business Information**

#### *Management Team and Advisory Board Appointments During Q1 2023*

1. Geoff Atkins, Ucore Vice-President of Business Development

Mr. Atkins has 30 years of experience as a skilled mining executive, with over 15 years focusing on rare earth projects. Mr. Atkins has played a critical role in establishing two rare earth operations, Mt. Weld with Lynas Corp. and Nechalacho with Vital Metals Ltd. Mr. Atkins was responsible for functions including the construction of the Mt. Weld project and developing long-term strategic plans at Lynas. Mr. Atkins utilized his skills to found Cheetah Resources, which was taken over by Vital Metals. Mr. Atkins joins the Company as Vice-President of Business Development to help secure contracts with rare earth feedstock projects around the globe and to support the Company's SMC business model. Mr. Atkins will evaluate each project's specific attributes to ensure a diverse security of supply with minimized geo-political risks and development timelines. Nechalacho best demonstrated this approach and was the first new rare earth project brought into production in nearly 10 years.

2. Jaan Hurditch, CEng, Ucore Engineering Director

Mr. Hurditch has been appointed as the Company's engineering director and has 18 years of experience in mineral processing, material handling, and resource recovery. Mr. Hurditch previously worked for IMC as the RapidSX™ platform development manager, where he played a key role in developing the RapidSX™ hardware platform. Mr. Hurditch holds a bachelor's degree in mechanical engineering and mechanical technology from the Queensland University of Technology in Australia. Mr. Hurditch has strong competencies in team building, 3-D computer-aided

design, finite element analysis, computational fluid dynamics, and rapid prototyping technologies. Mr. Hurditch will lead the Company's engineering activities, including the commercial deployment of the RapidSX™ hardware platform during the Louisiana SMC construction.

### 3. Dr. Ahmad Hussein, Ucore Advisory Board Member and Government Liaison

The Company has recently appointed Dr. Hussein as the Company's designated government liaison, strengthening its advisory board. Dr. Hussein's expertise in cultivating strategic relationships with Canadian and U.S. government agencies is expected to help the Company secure funding towards North American critical minerals projects. As a result of significant advances in the Company's technology, market presence, and commercialization efforts, the Company is expanding the capacity and focus of its advisory board, with Dr. Hussein bringing international experience in launching, scaling, and funding renewable energy projects, along with potential partners that will add value to the Company's proprietary RapidSX™ technology platform.

#### *IMC Former Employee Litigation*

On December 14, 2022, a former employee of IMC filed a civil claim against IMC and Ucore for wrongful dismissal and breach of contract. The claim is derived from an employment relationship between the former employee and IMC and the subsequent termination of this relationship. The Company believes that the action is without merit and intends to fully defend its interest and take all other legal actions available to it. The outcome of this claim cannot be determined at this time and no provision has been made in the consolidated financial statements for the period ended March 31, 2023.

### **Financing Transactions**

#### *2023 – Convertible Debenture Extension*

On May 10, 2023, the Company announced that it intends to extend the term of certain outstanding convertible debentures which currently have a maturity date of May 31, 2023. The convertible debentures were originally issued in May of 2020, with a three-year term. On May 21 and 29, 2020, the Company issued 1,280 and 1,520 convertible debentures respectively, with a face value of \$1,000 each for total gross proceeds of \$2.8 million. These unsecured convertible debentures bear interest at a rate of 7.5% payable semi-annually and mature on May 31, 2023. Pursuant to the terms of the convertible debentures, the Company has the option to extend the maturity date by one year in exchange for the payment of an extension fee equal to 6-months interest.

The Company intends to exercise its right to extend the maturity date of the remaining outstanding convertible debentures by one year, with a resulting maturity date of May 31, 2024, and to pay the extension fee of \$47,063.

At any time during the term of the convertible debentures, a holder may elect to convert the outstanding net principal amount, or any portion thereof, into units at a conversion price of \$1.20 per unit. Each unit shall consist of one common share of the Company and one-half of a warrant, with each whole warrant entitling the holder to acquire one common share at an exercise price of \$1.80 for a period ending on the maturity date.

As of May 3, 2023, a total of 1,545 convertible debentures have been previously converted into units, resulting in the issue of 1,287,483 common shares and 643,746 warrants. As a result, a total of 1,255 convertible debentures remain outstanding as of the date of this MD&A.

#### *2023 – Secured Credit Facility*

The Company has entered into a new Secured Credit Facility Agreement with Orca Holdings, LLC in the amount of up to USD\$1 million (the "2023 Facility"). Proceeds from the 2023 Facility will primarily be used to continue commission trials at the Company's RapidSX™ CDP located in Kingston, Ontario. Drawdowns on the 2023 Facility will be available in multiples of USD\$100,000 and will carry interest at a rate of 10% per annum. All amounts owing under the 2023 Facility will be repayable by December 31, 2023. An administrative loan origination fee equal to 1.5% of the available 2023 Facility will be paid at maturity. A total of 1 million bonus warrants will be issued as consideration for the granting of the 2023 Facility. The warrants will contain a condition precedent to their exercise such that no warrant shall be exercisable if such exercise would cause the lender's ownership of the Company, as calculated on a partially diluted basis, to exceed 19.99%. The warrants will have an exercise price of \$1.20 and a term of 12 months from the date of issue. Each warrant, and underlying share, shall be subject to a restricted period such that the holder must not trade the security before the date that is four months and one day after the date of issue. The issuance of the warrants are conditional upon the approval of the TSX Venture Exchange. As of the date of this MD&A the Company has drawn down \$500,000 USD from the 2023 Facility.

## 2022 - Private Placement

On December 22, 2022, the Company closed a non-brokered private placement consisting of a total of 7,055,795 units at a subscription price of \$0.65 per unit, for aggregate gross proceeds to the Company of \$4,586,266.75. Each unit consisted of one common share of the Company and one common share purchase warrant. Each warrant entitles the holder to purchase one common share at a price of \$0.85 for a 24-month term.

Proceeds from the offering were used for the commissioning of the Company's planned RapidSX™ demonstration plant; the processing of initial feedstock through the Company's demonstration plant; the finalization of offtake and feedstock agreements; engineering work for the Company's proposed strategic metals complex in Louisiana, United States; for the partial settlement of short-term debt; and for general working capital purposes.

Pursuant to the private placement, Orca Holdings LLC (a company owned and controlled by Randy Johnson, a Director of the Company) ("Orca") subscribed for a 1,785,000 units for aggregate gross proceeds of \$1,160,250, which is considered to be a related-party transaction within the meaning of Multilateral Instrument 61-01 *Protection of Minority Security Holders in Special Transactions* ("MI-61-101"). The transaction was exempt from the formal valuation and minority shareholder approval requirements of MI 61-101 since neither the fair market value of the subject matter of, nor the fair market value of the consideration for, the transaction, insofar as it involved interested parties, exceeded 25 per cent of the Company's market capitalization. No new insiders and no control persons were created in connection with the closing of the private placement.

The Company paid cash commissions totalling \$24,115 and issued 370,140 finders' warrants. Each finder's warrant will entitle the holder thereof to purchase one common share of the Company at a price of \$0.65 per common share for a period of 24 months after the closing of the private placement.

## 2022 – Line of Credit Facility

On July 20, 2022, the Company secured a line of credit facility from Orca (a related party) in the amount of up to \$2,000,000 USD. Proceeds from the line of credit were primarily used to continue the development of the Company's RapidSX™ REE commercial demonstration plant. In consideration for granting the line of credit two million warrants were issued to Orca with each warrant entitling Orca to acquire one common share of the Company at an exercise price of \$0.75 during a one-year term ending on July 20, 2023. The TSX Venture Exchange approved the issuance of the two million warrants on August 16, 2022. Details of this transaction and Mr. Johnson's holdings of the Company's securities are available on SEDI as well as in the early warning report filed on SEDAR on August 19, 2022.

Drawdowns on the line of credit were available in multiples of \$100,000 USD and carried interest at a rate of 9% per annum. On October 14, 2022, the Company had fully drawn down the line of credit. All amounts owing on the line of credit were to be repaid by the Company on January 20, 2023, unless the repayment date is accelerated due to the Company's completion of an equity financing for net proceeds exceeding \$3 million USD whereby the repayment date would be five business days after the closing of such financing.

Although the non-brokered private placement financing completed on December 22, 2022 would have triggered the full repayment of the line of credit, the parties have instead executed an amendment to the line of credit agreement, whereby a total of \$850,000 USD was repaid by December 30, 2022, and the maturity date for the remaining \$1.15 million USD was extended to March 31, 2024. The parties also agreed to keep the annual interest rate on the line of credit at 9%. A total of 1.15 million warrants previously issued to Orca in connection with the line of credit agreement expired concurrently with the execution of the line of credit amending agreement. In consideration for not requiring the full repayment of the line of credit, not increasing the interest rate and for extending the due date of the line of credit to March 31, 2024, on the \$1.15 million USD that remained outstanding after the \$850,000 USD repayment was made following the closing of the offering, a total of 1.15 million warrants were issued to Orca, with each warrant entitling Orca to acquire one common share at an exercise price of \$0.75. These warrants have a term ending on March 31, 2024. The line of credit is secured by a general security agreement over the assets of the Company.

Orca is owned by Mr. Randy Johnson, a resident of Alaska, USA. Mr. Johnson, directly and indirectly, holds greater than 10% of the Company's outstanding common shares (but less than 20%) and he is Director of the Company. Therefore, the transaction is considered a related party transaction within the meaning of MI 61-101. The line of credit facility transaction between the Company and Orca was exempt from the formal valuation and minority shareholder approval requirements of MI 61-101 since neither the fair market value of the subject matter of the transaction, nor the considered received or payable, exceeded 25% of the Company's market capitalization. No new insiders and no control persons were created in connection with the closing of the transactions. The Company's Board of Directors believes that the line of credit facility has reasonable commercial terms that are not less



advantageous to the Company as compared to if the line of credit were obtained from a person dealing at arm's length with the Company. The above-described transactions were reviewed and unanimously approved by the Company's Board of Directors. No special committee of the Board of Directors was created to negotiate, review and approve the, line of credit, line of credit amending agreement, or the offering agreements; rather, the agreements were negotiated by the Company with Mr. Johnson declaring his conflict and abstaining from the Board of Directors' deliberations. No cash consideration was paid pursuant to the extension of the due dates for the line of credit and no commissions or similar fees were paid to any person with respect the extension.

#### 2022 - Term Loan Extension

The Company is party to a secured term loan payable to Orca in the amount of \$964,928 USD which had a maturity date of November 30, 2023. On December 18, 2022, the parties have executed an agreement to extend the maturity date of this term loan to November 30, 2024. The parties also agreed to keep the annual interest rate on the term loan at 9%. A total of one million warrants each with an exercise price of \$1.20 that were previously issued to Orca in connection with the term loan expired concurrently with the execution of the term loan amending agreement. In consideration for extending the maturity date for the term loan to November 30, 2024, and for not increasing the interest rate, a total of one million warrants were issued to Orca, with each warrant entitling Orca to acquire one common share at an exercise price of \$0.85. The warrants have a term ending on November 30, 2024.

Orca is owned by Mr. Randy Johnson, a resident of Alaska, USA. Mr. Johnson, directly and indirectly, holds greater than 10% of the Company's outstanding common shares (but less than 20%) and he is Director of the Company. Therefore, the transaction is considered a related party transaction within the meaning of MI 61-101. The term loan transaction between the Company and Orca was exempt from the formal valuation and minority shareholder approval requirements of MI 61-101 since neither the fair market value of the subject matter of the transaction, nor the considered received or payable, exceeded 25% of the Company's market capitalization. No new insiders and no control persons were created in connection with the closing of the transactions. The Company's Board of Directors believes that term loan has reasonable commercial terms that are not less advantageous to the Company as compared to if the term loan were obtained from a person dealing at arm's length with the Company. The above-described transactions were reviewed and unanimously approved by the Company's Board of Directors. No special committee of the Board of Directors was created to negotiate, review and approve the term loan amending agreement or the offering agreements; rather, the agreements were negotiated by the Company with Mr. Johnson declaring his conflict and abstaining from the Board of Directors' deliberations. No cash consideration was paid pursuant to the extension of the due dates for the term loan, and no commissions or similar fees were paid to any person with respect to the extension.

#### Selected Annual Information

The following annual information is prepared in accordance with International Financial Reporting Standards. Amounts are reported in thousands of Canadian dollars, except for per share amounts.

	For the year ended December 31, 2022 \$	For the year ended December 31, 2021 \$	For the year ended December 31, 2020 \$
Net loss	5,469	5,511	5,526
Loss per share – basic and diluted	0.11	0.11	0.14
Total assets	53,241	49,444	46,969

#### Results of Operations

The Company has no operating revenues. The Company is dependent on equity or other external financings to fund the Company's mineral exploration and evaluation operations, to fund the Company's evaluation and intended development of the Company's Louisiana SMC, to fund the Company's pursuit and development of the Company's consolidated business plans (including the expected continued development of IMC's RapidSX™), and also to fund all of the Company's general, administrative, interest and other costs. As a result, the Company expects to incur operating losses until such time as either: (i) an economic mineral resource is identified, developed and put into profitable commercial production on one or more of the Company's mineral properties; (ii) the Louisiana SMC becomes designed, constructed and then eventually operational to the extent that it generates net profits; (iii) the

Company engages in other joint ventures related to its RapidSX™ technology; and/or (iv) the Company profitably sells one or more of its core assets.

During the three-month period ended March 31, 2023, the Company incurred a net loss of approximately \$1.64 million compared to a net loss of \$1.29 million for the comparable period ended March 31, 2022, an increase of approximately \$346,000. Operating expenses totalling approximately \$1.15 million were recognized during the three-month period ended March 31, 2023 compared to \$1.18 million during the comparable period ended March 31, 2022. The decrease in operating expenses is largely a result of decreased expenditures for salaries and consultants. Further variances between the years are discussed below.

The Company recorded non-cash amortization expenses of approximately \$24,000 during the three-month period ended March 31, 2023, which is consistent with the comparable prior period amount of approximately \$33,000 as the Company has not had any significant capital additions that are being amortized.

For the period ending March 31, 2023 the Company recorded salaries and consultant expenditures of approximately \$312,000, compared to approximately \$520,000 for the prior period. The decrease of approximately \$207,000 is mainly attributable to a decrease in headcount resulting from the departure of IMC's senior management team.

Professional services expenditures were approximately \$150,000 for the three-month period ended March 31, 2023, which are consistent with comparable prior period expenditures of \$165,000 as general business activities remained relatively unchanged period-over-period.

During the three-month period ended March 31, 2023, the Company incurred research and development expenditures of approximately \$71,000 (Q1 2022 - \$188,000) which relates to labour, supplies and materials, consulting and third party services, and facility expenditures incurred to further the advancement of the Company's wholly owned subsidiary's RapidSX™ technology. As the Company's the RapidSX™ technology has progressed to the commissioning phase the majority of expenditures associated to the development of the project have been capitalized and therefore resulting in a reduction of research and development expenditures.

Investor relations and marketing expenditures were approximately \$133,000 for the three-month period ended March 31, 2023 (Q1 2022 - \$63,000) an increase of approximately \$70,000 from the prior period. The increase in the current period is due to the commencement of the Company's digital marketing and advertising campaigns to assist in bringing awareness to the Company's business initiatives. Further details pertaining to the Company's investor relations and marketing activities is found below in the *Investor Relations* section.

The Company recorded office and premises expenditures of approximately \$55,000 for the three-month period ended March 31, 2023 compared to approximately \$68,000 for the prior period (Q1 2022). The amounts period-over-period are consistent as the Company has not incurred any operational changes that would require in an increase or decrease in office and premises expenditures from the prior period.

The Company recorded non-cash share-based compensation expense of approximately \$292,000 attributable to the estimated value of stock options earned and vested during the three-month period ended March 31, 2023. In the prior comparable period (Q1 2022), the Company recorded an expense of approximately \$114,000 resulting in a difference of approximately \$178,000. Differences period-over-period are largely attributable to size and timing of the options granted in each period.

The Company recorded travel expenditures of approximately \$86,000 for the three-month period ended March 31, 2023, compared to \$18,000 for the prior comparable period (Q1 2022). The increased travel expenditures in the current period are as result of the Company's attendance at the annual PDAC convention in Toronto, ON, private tours at the Company's CDF in Kingston, ON, and travel to Alexandria, LA to make progress with the Louisiana SMC.

When looking at the Company's consolidated statement of loss and comprehensive loss, the difference between the operating expenses and the net loss is the result of the following items:

- During the three-month period ended March 31, 2023, the Company recorded interest and accretion expense of approximately \$231,000 (Q1 2022 - \$108,000). The interest and accretion expenditures are as a result of the Company's convertible debentures, loans payable and lease liability.
- During the year ended December 31, 2020, the Company issued 2,800 convertible debentures at a price of \$1,000 per debenture for aggregate gross proceeds of \$2.8 million. Each debenture is convertible into one common share and one half common share purchase warrant of the Company. In addition, the

Company issued 50 commitment warrants per convertible debenture. The convertible debentures contain multiple embedded derivatives which have been revalued as at March 31, 2023 resulting in a loss on the fair value adjustment of approximately \$263,000 during Q1 2023 as compared to a loss of \$23,000 for the three-month period ended March 31, 2022.

- The Company recorded a foreign exchange loss of approximately \$4,000 during the three-month period ended March 31, 2023 versus a gain of approximately \$17,000 in the prior comparable period (Q1 2022). As the Company continues to deal in both the Canadian and United States currencies, the Company may continue to incur foreign exchange gains and losses arising from changes in the value of the United States dollar relative to the Canadian dollar.

### Summary of Quarterly Financial Results

Expressed in thousands of dollars, except per share amounts	3/31/23 \$	12/31/22 \$	9/30/22 \$	6/30/22 \$	03/31/22 \$	12/31/21 \$	9/30/21 \$	6/30/21 \$
Net loss	1,640	1,546	1,626	976	1,294	1,385	1,889	1,210
Loss per share – basic and diluted	0.03	0.03	0.03	0.02	0.03	0.03	0.04	0.03
Total Assets	52,775	53,241	50,344	47,939	47,466	49,444	50,934	51,331

During the first quarter of 2023, the Company incurred a net loss of approximately \$1.61 million compared to a net loss of \$1.29 million for the comparable prior period (Q1 2022). Research and development expenditures decreased by approximately \$116,000 period-over-period as the development of the Company's RapidSX™ Demo Plant is nearing completion and certain expenditures associated to the development of the project have been capitalized due to the nature of the expenditures. In the current quarter (Q1 2023), the Company recorded a reduction of salaries and consultant expenditures of approximately \$207,000 as a result of the resignations of IMC's senior management team in the prior year. As a result of fluctuations in foreign exchange rates the Company recorded an increase in foreign exchange expense in the current period of approximately \$21,000. In the current quarter (Q1 2023), the Company recorded share-based payments of approximately \$292,000 compared to approximately \$114,000 in the prior comparable quarter (Q1 2022) due to the timing and size of option grants period-over-period. The Company also recognized an increase in expenditure of approximately \$241,000 period-over-period from the fair value adjustments associated with the convertible debenture derivative liabilities. The remaining operating expenditures remained relatively consistent period-over-period.

### Liquidity and Capital Resources

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") applicable to a going concern, which assumes the Company will continue in operation for the foreseeable future and be able to realize its assets and discharge its liabilities and commitments in the normal course of business. In assessing whether the going concern assumption is appropriate, management takes into account all available information about the future, which is at least, but is not limited to, twelve months from the end of the reporting period. Management is aware, in making its assessment, of material uncertainties related to events or conditions that may cast significant doubt upon the Company's ability to continue as a going concern, as described in the following paragraphs.

The Company has no sources of revenue, experienced significant losses and negative cash flows from operations in previous years and has a deficit. Without additional financing or other satisfactory arrangements during Q2 2023, the Company's financial resources will not be sufficient to develop its projects and continue the advancement of the Company's RapidSX™ technology. The ability of the Company to continue as a going concern, realize its assets and discharge its liabilities in the normal course of business and continue with, or expand upon its exploration programs is contingent upon securing financing or monetizing assets. The timing and availability of additional financing will be determined largely by market conditions and the results of the Company's ongoing exploration programs. There is no certainty that the Company will be able to raise funds as they are required in the future.

The consolidated financial statements do not reflect adjustments that would be necessary if the going concern assumption were not appropriate. If the going concern basis was not appropriate for the consolidated financial

statements, then adjustments would be necessary to the carrying value of assets and liabilities, the reported revenues and expenses, and the statement of financial position classifications used.

As at March 31, 2023, the Company had negative working capital of approximately \$3.99 million with an unrestricted cash balance of approximately \$363,000. As at March 31, 2023, the Company had current assets of approximately \$975,000 and current liabilities of approximately \$4.96 million resulting in current ratio of 0.20.

The Company's operations used approximately \$506,000 of cash for the three-month period ended March 31, 2023. During Q1 2023, the Company incurred approximately \$1.24 million in cash expenditures on plant and equipment which primarily relates to the commissioning and construction of the Company's RapidSX™ Pilot Plant in Kingston, ON. Net cash expenditures on resource properties and related deferred costs totalled approximately \$123,000 during the period, largely driven by the metallurgical analysis, geological consulting, and general carrying costs of the property. Expenditures were primarily funded from working capital.

On May 10, 2023, the Company announced that it intends to extend the term of certain outstanding convertible debentures which currently have a maturity date of May 31, 2023. See "Financing Transactions – 2023 – Convertible Debenture Extension" above for additional information.

On May 10, 2023, the Company announced that it has entered into a new Secured Credit Facility Agreement with Orca Holdings, LLC in the amount of up to USD\$1 million. See "Financing Transactions – 2023 – Secured Credit Facility" above for additional information.

On December 22, 2022, the Company announced the closing of a non-brokered private placement consisting of a total of 7,055,795 units at a subscription price of 65 cents per unit, for aggregate gross proceeds to the Company of \$4,586,266.75. See "Financing Transactions – 2022 - Private Placement" above for additional information.

On July 20, 2022, the Company secured a line of credit facility from Orca in the amount of up to \$2,000,000 USD. Proceeds from the line of credit were primarily used to continue the development of the Company's RapidSX™ REE commercial demonstration plant. Drawdowns on the line of credit were available in multiples of \$100,000 USD and carried interest at a rate of 9% per annum. On October 14, 2022, the Company had fully drawn down the line of credit. All amounts owing on the line of credit were to be repaid by the Company on January 20, 2023, unless the repayment date is accelerated due to the Company's completion of an equity financing for net proceeds exceeding \$3 million USD whereby the repayment date would be five business days after the closing of such financing.

Although the non-brokered private placement financing completed on December 22, 2022 would have triggered the full repayment of the line of credit, the parties have instead executed an amendment to the line of credit agreement, whereby a total of \$850,000 USD was repaid by December 30, 2022, and the maturity date for the remaining \$1.15 million USD was extended to March 31, 2024. The parties also agreed to keep the annual interest rate on the line of credit at 9%. See "Financing Transactions – 2022 – Line of Credit Facility" above for additional information.

The Company is party to a secured term loan payable to Orca in the amount of \$964,927.81 USD which had a maturity date of November 30, 2023. The parties have executed an agreement to extend the maturity date of this term loan to November 30, 2024. The parties also agreed to keep the annual interest rate on the term loan at 9%. See "Financing Transactions – 2022 – Term Loan Extension" above for additional information.

The Company is reliant on equity or other types of financing for its current short term and long-term working capital requirements and to fund its exploration programs and business development activities. The Company's ability to continue as a going concern is dependent upon the ability of the Company to obtain necessary financing or other satisfactory arrangements to fund its operating expenses and interest expense until development financing is obtained to allow the Company to be self-sufficient. The Company's ability to continue its development activities is dependent on management's ability to secure additional financing in the future, which may be completed by way of traditional equity financings or in a number of alternative ways including, but not limited to, a combination of: new strategic partnerships; joint venture arrangements; project-level or subsidiary-level third-party financings; royalty or streaming financing; the sale of core and/or non-core assets; and other capital market alternatives. Management is currently pursuing additional financial sources, and while the Company's management has been successful in obtaining financing for the Company in the past, there can be no assurance it will be able to do so in the future or that these sources of funding or initiatives will be available for the Company or that they will be available on terms which are acceptable to the Company.

#### *Market Maker*

In regard to market making services related to the Company's common shares, the Company currently retains the services of Venture Liquidity Providers Inc. ("VLP") to provide assistance in maintaining an orderly trading market

for the common shares of the Company on the TSX Venture Exchange. These market making services are undertaken by VLP through a registered investment dealer, W.D. Latimer Co. Ltd., in compliance with the policies of the TSX Venture Exchange and other applicable legislation. The Company continues to pay VLP \$5,000 per month as was described in the Company's press release dated January 15, 2016 when VLP was first retained by the Company.

#### *Investor Relations*

During the three-month period ended March 31, 2023 and up until the date of this MD&A, the Company used advertising and promotion services offered by Google and Facebook to raise public awareness of the Company's website and corporate videos and to bring awareness to the Company's business initiatives. The Company spent on average approximately \$11,000 per month for advertising and promotion services provided by Google and Facebook. The Company's corporate videos are approved by the Company's management prior to public distribution. On January 1, 2023, the Company engaged Goldinvest Consulting GmbH ("Goldinvest") at a cost of \$16,000 for a 6 month period ending June 30, 2023. Goldinvest will prepare corporate videos and assist with marketing activities in the German market. On February 13, 2023, the Company engaged InvestorIntel Corp. ("InvestorIntel") at a total cost of \$17,250 for a period of 12 months. InvestorIntel will provide digital marketing and video production services along with a 12 month brand awareness program featured on InvestorIntel's website and social media channels. On January 24, 2023, the Company engaged InvestorBrandNetwork ("IBN") at a cost of \$19,000 per quarter for a period of 12 months. IBN will provide the Company with weekly coverage, expanded editorial services, media kits, and additional branding and marketing support.

#### **Off-Balance Sheet Arrangements**

As at March 31, 2023, the Company had no material off-balance sheet arrangements such as guarantee contracts, contingent interest in assets transferred to an entity, derivative instruments obligations or any obligations that trigger financing, liquidity, market or credit risk to the Company.

#### **Critical Accounting Estimates**

The preparation of financial statements in conformity with IFRS requires management to make estimates, judgments, and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. These estimates are based on historical experience, current and future economic conditions, and other factors, including expectations of future events that are believed to be reasonable under the circumstances. The determination of estimates requires the exercise of judgment based on various assumptions and other factors such as historical experience and current and expected economic conditions. Actual results could differ from those estimates.

Further information on management's judgments, estimates and assumptions and how they impact accounting policies are described below and also in the relevant notes to the consolidated financial statements.

#### *Going concern*

The assessment of the Company's ability to continue as a going concern and to raise sufficient funds to pay for its ongoing operating expenditures, meets its liabilities for the ensuing year, and to fund planned and contractual development and exploration programs, involves significant judgment based on historical experience and other factors including expectation of future events that are believed to be reasonable under the circumstances.

#### *Impairment assessment of intellectual property*

Intellectual property is an intangible asset that is not available for use and is tested for impairment annually by comparing the carrying amount of the cash generating unit ("CGU") to its recoverable amount determined based on the higher of the value in use and fair value less costs of disposal ("FVLCO"). Recoverable amount has been determined based on FVLCO. The Company applies judgment when determining which method is most appropriate to estimate FVLCO. FVLCO was determined based on a reproduction cost method which requires the Company to estimate key inputs and assumptions including cost estimates and inflation factors.

#### *Recoverability of exploration and evaluation assets*

At the end of the reporting period, the Company assessed its exploration and evaluation assets to determine whether any indication of impairment exists. Judgement is required in determining whether indicators of impairment exist,

including factors such as expiration of rights to explore with no right or expectation of renewal, substantive expenditure on further exploration and evaluation in the specific area is neither budgeted nor planned or the entity has decided to discontinue such activities in the specific area, no commercially viable quantities are discovered and exploration and evaluation activities will be discontinued, or sufficient data exists to indicate that the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

Where an indicator of impairment exists, a formal estimate of the recoverable amount is made, which is considered to be the greater of the fair value less cost of disposal and value in use. The impairment analysis requires the use of estimates and assumptions, such as long-term commodity prices, discount rates, future capital expenditures, exploration potential and operating costs. Fair value of exploration and evaluation assets is generally determined as the present value of estimated future cash flows arising from the continued use of the assets, which includes estimates such as the cost of future expansion plans and eventual disposal, using assumptions that an independent market participant may take into account. Cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessment of the time value of money and risk to the asset.

If the Company does not have sufficient information about a particular mineral resource property to meaningfully estimate future cash flows, the fair value is estimated by management through comparison to similar market assets and, where available, industry benchmarks.

### Changes in Accounting Policies including Initial Adoption

#### *New accounting standards not yet adopted*

The IASB issued the following standards that have not been applied in preparing the interim consolidated financial statements as their effective date falls within annual periods beginning subsequent to the current reporting period.

The Company adopted the following accounting standards and amendments to accounting standards effective January 1, 2023:

#### IAS 1 – Presentation of Financial Statements

On January 23, 2020, the IASB issued an amendment to IAS 1 Presentation of Financial Statements providing a more general approach to the classification of liabilities. The amendment clarifies that the classification of liabilities as current or noncurrent depends on the rights existing at the end of the reporting period as opposed to the expectations of exercising the right for settlement of the liability. The amendments further clarify that settlement refers to the transfer of cash, equity instruments, other assets, or services to the counterparty. The amendments are effective for annual periods beginning on or after January 1, 2023 and are to be applied retrospectively, with early adoption permitted. These amendments had no impact on the Company's condensed interim consolidated financial statements.

### Related Party Transactions

Related parties consist of key management personnel, directors, and entities that are associated with the Company as well as significant shareholders including Orca. The Company has defined key management personnel as senior executive officers, as well as the Board of Directors. The total remuneration of key management personnel and the Board of Directors was as follows:

	Three month period ended March 31, 2023 (\$)	Three month period ended March 31, 2022 (\$)
Director's fees	54,750	54,750
Share-based payments to directors	101,839	30,065
Key management short-term benefits	126,962	123,297
Share-based to key management	87,021	24,052
	<u>370,572</u>	<u>232,165</u>

Key management short-term benefits include all salary, bonuses, and health/dental benefits earned by officers during the period.

#### *Other related party transactions*

During the three-month period ended March 31, 2023, the Company paid \$22,125 (Q1 2022 - \$73,382) in legal fees to Miller Thomson LLP. Mr. Geoff Clarke, a director of the Company, is a partner of that law firm. Payments made by the Company to Miller Thomson LLP are for the various legal services provided to the Company by several

lawyers and law clerks at the firm, which includes lawyers and law clerks in multiple provinces and offices across Canada.

For additional related party transactions see “Financing Transactions” above.

All related party transactions were valued and recorded by the Company at the stated amount agreed to between the parties. To the Company’s knowledge, the Company’s reporting insiders have reported their transactions on the System for Electronic Disclosure by Insiders, known as SEDI ([www.SEDI.ca](http://www.SEDI.ca)). Orca Holdings, LLC (which is wholly owned by Mr. Randy Johnson, a director of the Company since October 6, 2020) filed its latest early warning report on SEDAR on May 10, 2023 ([www.SEDAR.com](http://www.SEDAR.com)).

### Outstanding Share Data

The Company’s outstanding share capital is detailed in note 15 of the Company’s consolidated financial statements for the three-month period ended March 31, 2023. On April 11, 2023, the Company granted 1,425,000 stock options to directors, officers, employees, and consultants of the Company with an exercise price of \$1.30. The options expire 5 years from the grant date and vest one third every six months. On May 10, 2023, the Company announced that it intends to extend the term of the previously issued Warrants by one year, to match the revised term of the convertible debentures as noted in the “Financing Transactions – 2023 – Convertible Debenture Extension” above. A total of 602,080 Warrants will now have a term ending on May 31, 2024, the Maturity Date. The extension of the term of the Warrants will be conditional upon the approval of the TSX Venture Exchange (which, for the purpose of the table below, has been assumed will be provided).

The following is the Company’s issued and outstanding share data as of the date of this MD&A report (May 30, 2023).

Securities	Number	Weighted average exercise price \$	Weighted average remaining life (years)
Common shares	56,139,925	n/a	n/a
Warrants	15,684,075	1.02	1.13
Stock options under plans approved by shareholders	5,209,000	1.11	3.97
Deferred share units under plans approved by shareholders	55,710	n/a	n/a

### Risks and Uncertainties

In conducting its business, the principal risks and uncertainties faced by the Company relate to:

- the development of the Company’s prospective Louisiana SMC including the commercial deployment of the Company’s innovative RapidSX™ mineral processing and purification technology capable of efficiently processing and purifying one or more feedstocks of mixed rare earth mineral concentrates;
- the ability of the Company to generate positive cashflow from its expected future business operations;
- commodity prices and the demand for REEs and other critical materials that underlay the business objectives of the Company;
- the availability of upstream REE feedstock, and in quantities and at prices that will allow for the Company to develop and then commercially operate its planned SMCs in order to refine the REEs and then sell and deliver them profitably to the Company’s downstream customers;
- exploration and development success of the Company’s mineral property (the Bokan Project);
- capital adequacy, liquidity and cash management along with the ability to obtain additional financing in both the short and long terms;
- counter-party risk and issues related to any significant non-compliance by the parties to the Company’s material contracts;
- the ability of the Company to develop and/or protect its intellectual property; and
- general economic, business and capital market sentiment and conditions.

Within the next two years, the Company's development and growth depends on its ability to: (i) successfully complete and fully commission the Demo Plant at the CDF in Kingston, Ontario; (ii) secure one or more reliable sources of REE feedstock at prices that are acceptable and attractive to the Company; (iii) secure one or more REE-product customers that are willing and able to purchase REE products from the Company at prices that are expected to be profitable for the Company; and then (iv) develop, construct and commission the Louisiana SMC (Phase 1), which will be the Company's first commercially operated rare earth processing facility.

On October 19, 2021, the Company and Vital Metals Limited ("Vital Metals") signed a memorandum of understanding ("MOU") for REE-feedstock supply, where Vital Metals would provide a minimum of 500 tpa of cerium-depleted REE-concentrate in 2024, potentially expanding to over 2,500 tpa by 2026. However, following Vital Metals' review of the Saskatoon Rare Earth Processing Facility which was announced on April 19, 2023, the Company faces increased risk regarding the uncertainty of Vital Metals' ability to deliver the agreed-upon feedstock as per the MOU. Vital Metals' decision to defer certain circuits and pause its construction activities at the Vital Metals Saskatoon Rare Earth Processing facility may impact the Company's feedstock supply and Vital Metals ability to fulfill the terms of the MOU.

The success of the Company's business in the long run will depend, in part, on the growth of existing and emerging uses for rare earth products and other critical materials that are suitable for processing using RapidSX. Demand for the REE products that the Company is planning on eventually producing and selling from the Company's planned SMCs may be impacted by demand for downstream products incorporating rare earths, including hybrid and electric vehicles, wind turbines, robotics, medical equipment, military equipment and other high-growth, advanced motion technologies, as well as demand in the general automotive and electronic industries. Lack of growth in these markets may adversely affect the demand for the Company's expected products. In contrast, extended periods of high commodity prices may create economic dislocations that may be destabilizing to rare earth minerals supply and demand and ultimately to the broader markets. Periods of high rare earth mineral market prices generally are expected to be beneficial to the Company's financial performance. However, strong rare earth mineral prices also create economic pressure to identify or create alternate technologies that ultimately could depress future long-term demand for rare earth minerals and products, and at the same time may incentivize development of competing rare earth processing technologies and also rare earth mining properties.

The Company's strategy is to eventually produce rare earth products from the Company's planned SMCs that are expected to be used by the Company's customers in their manufacturing or assembly of hybrid and electric vehicles, wind turbines, robotics, medical equipment, military equipment and other technologically advanced products. The success of the Company's eventual business will depend on the continued growth of these end markets and the successful commercialization of rare earth products, including NdPr, in such markets. If the market for these critical existing and emerging technologies does not grow as the Company expects, grows more slowly than is expected, or if the expected demand for the Company's future products in these markets decreases, then the Company's business, prospects, financial condition and operating results will be harmed. In addition, the market for these technologies, particularly in the automotive industry, tends to be cyclical, which exposes the Company to increased volatility, and it is uncertain as to how such macroeconomic factors will impact the Company's business. Any unexpected costs or delays in the commercialization of separated REE products or rare earth magnets, or less than expected demand for the critical existing and emerging technologies that use rare earth products, could have a material adverse effect on the Company's financial condition or results of operations.

Changes in the People's Republic of China's political environment and policies, including changes in export policy or the interpretation of China's export policy and policy on rare earths production or the import of rare earth feedstock, may adversely affect the Company's business prospects, viability, financial condition and the results of operations.

The production of rare earth products is a capital-intensive business and will require the commitment of substantial resources and if the Company does not have sufficient resources to provide for such production, it could have a material adverse effect on the Company's financial condition or results of operations. The completion of the Demo Plant and the development, construction and commissioning of the Louisiana SMC will require the commitment of substantial resources and capital expenditures. The Company's estimated expenses may increase as additional consultants, personnel and equipment associated with the Company's efforts are added, and as a result of inflationary pressures in Canada and the United States. The progress of the Louisiana SMC, the amounts and timing of expenditures and the success of the project will depend in part on the following: (a) the successful development and installation of the RapidSX equipment in the Louisiana SMC facility; (b) the ability of the new equipment and to separate REO as designed and engineered; (c) the Company's ability to timely procure new equipment and materials, certain of which may involve long lead-times, or to repair existing equipment at the Demo Plant; (d) the failure of service providers or vendors to meet contractually-negotiated delivery or completion deadlines or meet performance specifications or guarantees; (e) maintaining, and procuring, as required, any applicable federal, state and local permits; (f) the handling of project change orders, due to engineering, process, health and safety, or other



considerations; (g) negotiating contracts for equipment, equipment assembly and installation, labor and work related to commissioning the Louisiana SMC; (h) impact of planned and unplanned shut-downs and delays in the Company's development plans; (i) impact of stoppages or delays on construction projects; (j) disputes with contractors or other third parties; (k) negotiating sales and offtake contracts for the Company's planned production; (l) the execution of any joint venture agreements or similar arrangements with strategic partners; (m) the impact of COVID-19 or similar pandemics on the Company's business, the Company's strategic partners' or suppliers' businesses, logistics or the global economy; and (n) other factors, many of which are beyond our control.

IMC's RapidSX™ mineral processing and purification technology is only at an advanced testing and optimization stage utilizing a still-under-construction-and-commissioning commercial demonstration facility that is located in Kingston, Ontario and has yet to be proven at a commercial scale in a large REE purification and processing facility. Ucore has not yet prepared or released an economic assessment or feasibility study that utilizes RapidSX™ for the separation and production of REEs from the Bokan Project property or any other potential REE feedstock. The following risks are specific to IMC and RapidSX™:

- The commercial effectiveness of RapidSX™ is subject to uncertainty and risk, and may be affected by many factors, some of which are beyond the Company's control, including the emergence of newer, more competitive technologies and processes, the cost of building and operating a commercial-scale RapidSX™ facility, regulatory and environmental requirements, unknown profitability performance and financial metrics, the existence, knowledge and cooperation of key individuals, and the ability to attract customers and sources of feedstock.
- The long-term success of the Company's acquisition of IMC will depend upon, among other things, the ability to protect the key intellectual property including any relevant patents, trade secrets, trademarks, and copyright materials and property. There is no assurance that these will remain protected. There is also no assurance that alternate or competing technologies will not get developed that will result in the Company's existing intellectual property becoming obsolete or less competitive.
- The Company may not be able to adequately protect the Company's and IMC's intellectual property rights. If the Company fails to adequately enforce or defend these intellectual property rights, then the Company's business may be harmed. If the Company infringes, or is accused of infringing, the intellectual property rights of third parties, it may increase the Company's costs or prevent the Company from being able to commercialize RapidSX or any other new products or processes.
- The specialized scientific nature of RapidSX™ means that the Company's success depends in a large part on the ability to recruit and retain key management, engineering, scientific, and operating personnel. Recruiting in these fields can be highly competitive and there is no assurance that key employees will be able to be recruited and retained.

The Louisiana SMC discussed in this MD&A is preliminary, conceptual and aspirational in nature as at the date hereof. The development of the SMC will require funding and the support of business partners, customers and the State government in order to be designed, developed, constructed and become operational, none of which is assured.

The Company does not currently have any contractually committed customers for the planned output and delivery of REEs from the Company's prospective Louisiana SMC. Although the Company is in periodic discussions with potential customers regarding potential prepayment offtake agreements (whereby the customer would prepay for a portion of the expected output from the Louisiana SMC and would pay for remaining ordered portions upon delivery), there is no assurance that the parties will be able to reach an agreement or that the Company will be able to produce and deliver the required REE products in accordance with the customer's required specifications and timing requirements. The Company's Demo Plant and then the Louisiana SMC will need to process REE to exacting specifications in order to provide future customers with a consistently high-quality product. An inability to process REE that meet individual customer specifications may have a material adverse effect on the Company's financial condition or results of operations.

The Company may not be able to convert the current commercial discussions with OEM-automotive and similar REE-product customers into contracts, which will have a material adverse effect on the Company's financial position and results of operations.

The Company's PEA (which was filed on SEDAR on March 14, 2013) is preliminary in nature. The PEA includes indicated and inferred mineral resources only, which are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability.

Most mineral exploration projects do not result in the discovery or development of commercially or profitably mineable ore deposits. No assurance can be given that any particular level of recovery of ore reserves or resources will be realized or produced from the Company's Bokan Project. Estimates of reserves and resources, mineral deposits and production costs can also be affected by such factors as: property title and tenement defects; environmental permitting; mining regulations and regulatory requirements; first nations rights or entitlements; wildlife concerns; weather and environmental factors; unforeseen technical difficulties; unusual or unexpected geological formations; work interruptions, strikes and/or protests. Material changes in ore reserves and resources, grades, stripping ratios, recovery rates or expected vs. realized selling prices of the underlying commodities may also significantly affect the economic viability of any project. Certain of the Company's mineral properties may be subject to defects in title not yet known to the Company resulting in the risk of loss of ownership. The Company may incur significant costs related to defending the title to the Company's properties.

The Company's future viability may depend, in part, on its ability to identify and acquire new or additional mineral rights and/or business opportunities, and on the ability to finance and develop those opportunities. Mineral exploration and development is highly speculative in nature, expensive and is frequently non-productive or unprofitable. Substantial expenditures are required to:

- locate and establish ore reserves and resources through drilling and metallurgical and other testing techniques;
- determine metal content and metallurgical recovery processes to extract metal from the ore; and
- permit, construct, renovate and/or expand mining and processing facilities.

In addition, the prices of metals fluctuate widely and are affected by many factors outside of the Company's control. The relative prices of metals and future expectations for such prices have a significant impact on the market sentiment for investment in mining and mineral exploration companies.

The mining and mineral processing businesses are subject to extensive and costly environmental requirements; current and future laws, regulations and permits impose significant costs, liabilities or obligations or could limit or prevent the Company's ability to develop or operate the Louisiana SMC or the development and operations of the Bokan Project. Moreover, environmental legislation and regulation are evolving in a manner that may impose stricter standards and enforcement, increased fines and penalties for non-compliance, cessation of operations, more stringent environmental assessments, and a heightened degree of responsibility for companies and their officers, directors and employees.

The Company will be reliant on equity or other types of external financing for its current, short-term and long-term working capital requirements and to fund its exploration programs. The Company does not generate any revenue and does not have sufficient funds to put any of its resource's interests (including the Louisiana SMC) into production from its own financial resources. There is no assurance that a future significant financing will be available to the Company, or that it will be available on acceptable terms. If an equity or convertible securities financing is undertaken and completed by the Company, the Company's current stockholders will suffer immediate dilution to their equity and voting interests as a result of such a financing. If additional capital is not available in sufficient amounts or on a timely basis, the Company will experience liquidity problems, and the Company could face the need to significantly curtail current operations, change our planned business strategies and pursue other remedial measures. Any curtailment of business operations would have a material negative effect on operating results, the value of the Company's outstanding common shares and the Company's ability to continue as a going concern.

The Company has no history of paying dividends on its common shares, and the Company does not anticipate paying any dividends in the foreseeable future.

There is no assurance that the Company will qualify for or receive any direct funding from any US Government (federal, state or municipal) or any Canadian Government (federal, provincial or municipal).

There is no assurance that the State of Louisiana will provide any funding related to the Louisiana SMC, as contemplated in the Letter of Intent dated October 14, 2022.

The Company depends upon information technology systems in the conduct of its business. The Company's information technology systems are at risk to disruption, damage or failure from a variety of sources, including, without limitation, computer viruses, security breaches, cyber-attacks, natural disasters and defects in design. Cybersecurity incidents, in particular, are evolving and include, but are not limited to, malicious software, attempts to gain unauthorized access to data and other electronic security breaches that could lead to disruptions in systems, unauthorized release of confidential or otherwise protected information or the corruption of data. Various measures have been implemented to manage the Company's risks related to information technology systems and network disruptions. However, given the unpredictability of the timing, nature and scope of information technology

disruptions, the Company could potentially be subject to downtimes, operational delays, the compromising of confidential or otherwise protected information, destruction or corruption of data, security breaches, other manipulation or improper use of our systems and networks or financial losses from remedial actions, any of which could have a material adverse effect on our business, operating results and financial condition.

The Company's business activities are inherently risky and the Company is exposed to business and financial risks as well as liability. Many of these risks are non-insurable. For the insurable risks, if the Company is unable to maintain adequate insurance, or liabilities exceed the limits of the Company's insurance policies, the Company may be unable to continue operations. Because of the unique difficulties and uncertainties inherent in new mineral exploration ventures as well as new scientific and technological business ventures, the Company's activities face a high risk of business failure. Due to the Company's limited capital, this risk poses a significant threat as compared to larger companies in our business sector.

The Company's financial instruments consist of cash, restricted cash, short-term deposits, marketable securities, trade and other receivables, and accounts payable and accrued liabilities. Management does not believe these financial instruments expose the Company to any significant interest, currency or credit risks arising from these financial instruments. The fair market values of these financial instruments approximate their carrying values, unless otherwise noted.

### **Climate Change**

Recent increased attention regarding the risks of climate change may result in an increase in the stigmatization of the Company's industry (mineral resource development and mineral extraction/separation technologies). This may result in reduced interest or investment participation by capital market participants and the Company, thereby making it more difficult for the Company to raise funding on terms that are acceptable to the Company. In addition, increased concerns about climate change and any negative sentiments about the Company's industry and sector may adversely affect the timing or ability to receive any required environmental permits that may eventually be required prior to the potential Louisiana SMC facility going into production, the Bokan property becoming built into an operating mine, and/or influencing IMC's future expected customers and their ability to build and operate their mines and generate feedstock for eventual processing in a potential RapidSX™ separation facility.

### **Disclosure Controls and Procedures and Internal Controls over Financial Reporting**

Disclosure controls and procedures ("DC&P") are intended to provide reasonable assurance that material information is gathered and reported to senior management to permit timely decisions regarding public disclosure. Internal controls over financial reporting ("ICFR") are intended to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with Canadian generally accepted accounting principles.

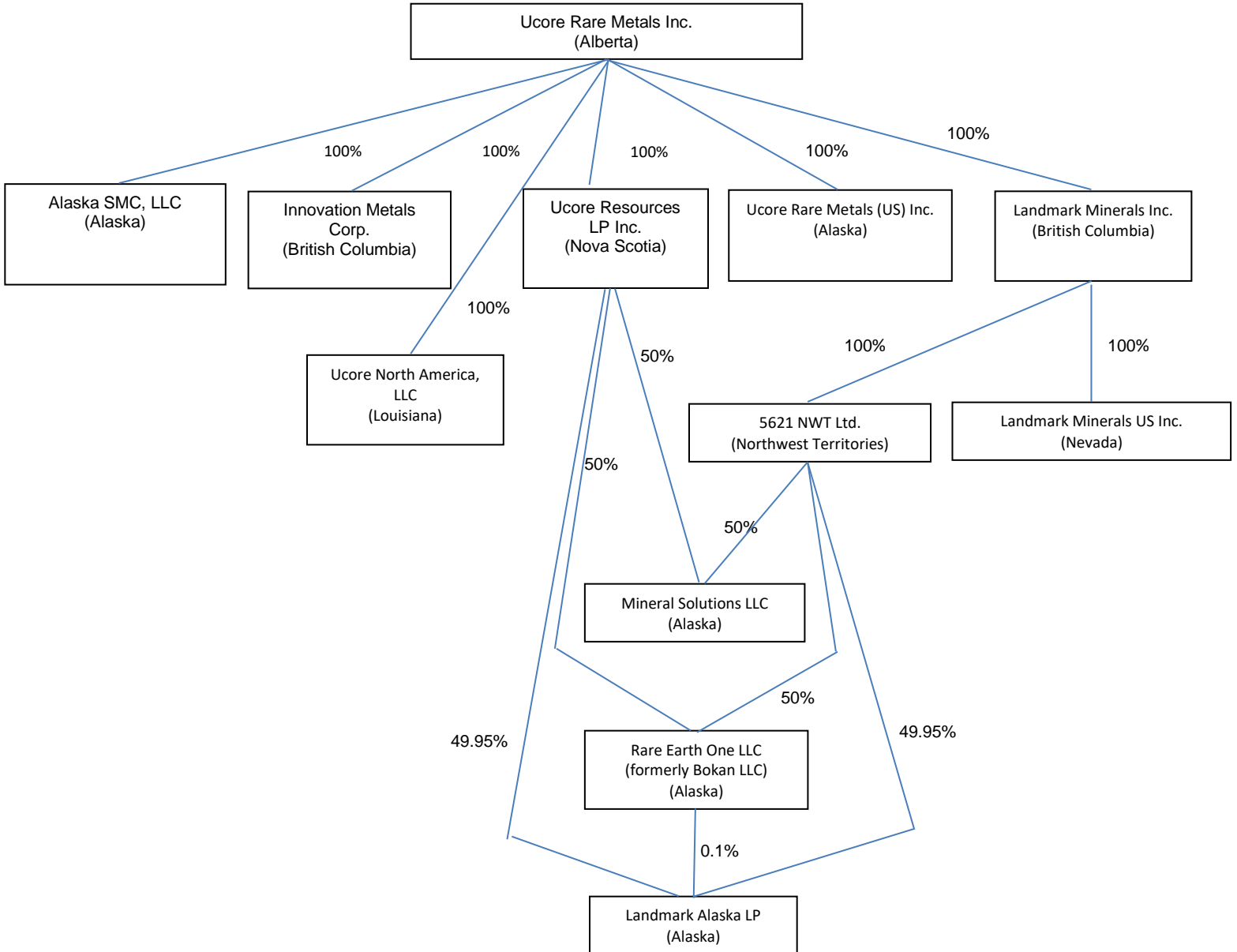
TSX Venture Exchange listed companies are not required to provide representations in their annual and interim filings relating to the establishment and maintenance of DC&P and ICFR, as defined in Multinational Instrument 52-109. In particular, the CEO and CFO certifying officers do not make any representations relating to the establishment and maintenance of (a) controls and other procedures designed to provide reasonable assurance that information required to be disclosed by the issuer in its annual filings, interim filings or other reports filed or submitted under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation, and (b) processes to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with the Company's GAAP.

### **Other Information**

Additional information regarding the Company is available on SEDAR at [www.sedar.com](http://www.sedar.com) and on the Company's website at [www.ucore.com](http://www.ucore.com).

Appendix "A"

Ucore Rare Metals Inc.  
Corporate Organizational Chart as at May 30, 2023



**Appendix “B”  
Ucore’s Mineral Exploration and Evaluation (“E&E”) Expenditures**

**For the period ended March 31, 2023**

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**Details of Resource Properties and Related Deferred Costs**

	Bokan Mountain/ Dotson Ridge
<b>Mineral Properties</b>	
Balance, beginning of the period	\$ 4,945,101
Expenditures during the period	-
Change in foreign exchange rates	(1,639)
Balance, end of the period	4,943,462
<b>Deferred Exploration expenditures:</b>	
Geology	18,204
Environmental & permitting	42,368
Metallurgy	7,475
	68,047
Balance, beginning of the period	34,728,746
	34,796,793
Change in foreign exchange rates	(11,563)
Balance, end of the period	34,785,230
<b>Mineral properties and deferred exploration expenditures, end of the period</b>	<b>\$ 39,728,692</b>

**For the period ended March 31, 2022**

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**Details of Resource Properties and Related Deferred Costs**

	Bokan Mountain/ Dotson Ridge
<b>Mineral Properties</b>	
Balance, beginning of the period	\$ 473,821
Expenditures during the period	-
Change in foreign exchange rates	(43,272)
Balance, end of the period	430,549
<b>Deferred Exploration expenditures:</b>	
Geology	-
Environmental & permitting	40,027
Metallurgy	60,247
	100,274
Balance, beginning of the period	32,471,189
	32,571,463
Change in foreign exchange rates	(305,236)
Balance, end of the period	32,266,227
<b>Mineral properties and deferred exploration expenditures, end of the period</b>	<b>\$ 32,696,776</b>